

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018460**Date Inspected:** 02-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	N/A			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	PQR		

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Weld Lab

This QA Inspector observed the welding of the following Procedure Qualification Records (PQR):

HP2010163 using the Flux Cored Arc Welding (FCAW) process in the 3G (vertical) position using ESAB E71T-1M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter, Lot # 89926. The Welding Procedure Specification (WPS) followed was PWPS-B-T-2233T-ESAB-1. The test plate configuration was a Complete Joint Penetration (CJP) Single V Groove weld Butt Joint, 35mm in thickness and 700mm in length using ceramic backing. The test plate material is identified as A709 GR345. Thirteen (13) weld passes were used to complete the groove weld. The welder was identified as Yang Xing Long.

HP2010162 using the Flux Cored Arc Welding (FCAW) process in the 1G (flat) position using ESAB E71T-1M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter, Lot # 89926. The Welding Procedure Specification (WPS) followed was PWPS-B-T-2231T-ESAB-1. The test plate configuration was a Complete Joint Penetration (CJP) Single V Groove Butt Joint, 35mm in thickness and 700mm in length using ceramic backing. The test plate material is identified as A709 GR345. Seventeen (17) weld passes were used to complete the groove

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weld. The welder was identified as Yang Xing Long.

HP2010164 using the Flux Cored Arc Welding (FCAW) process for the root pass and the Submerged Arc Welding (SAW) process for the fill and cover passes in the 1G (flat) position. FCAW was performed using ESAB E71T-1M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter. SAW was performed using Hyundai EH14, the electrode is 4.8mm in diameter. The Welding Procedure Specification (WPS) followed was PWPS-B-T-223(2)1T-ESAB-1. The test plate configuration was a Complete Joint Penetration (CJP) Single V Groove Butt Joint, 35mm in thickness and 700mm in length using ceramic backing. The test plate material is identified as A709 GR345. Twenty-five (25) weld passes were used to complete the groove weld. The welder was identified as Yang Xing Long. The welding operator is identified as Zhang Xing Jin.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



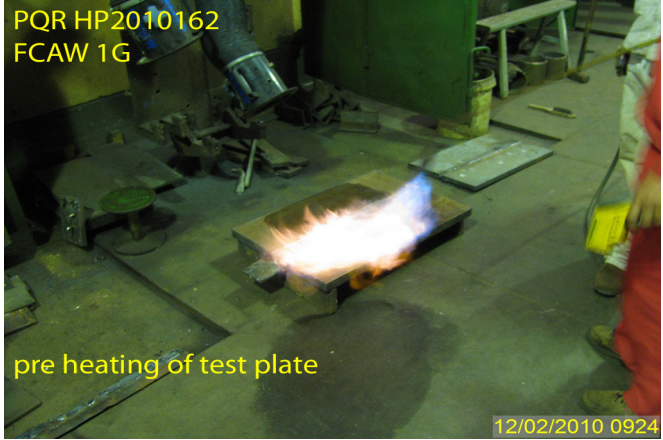
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PQR HP2010163
FCAW 3G
completed test plate



PQR HP2010162
FCAW 1G



PQR HP2010162
FCAW 1G
completed test plate



PQR HP2010164
1G FCAW root pass/ SAW fill, cover pass
completed test plate



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By: Hernandez,Dan

Quality Assurance Inspector

Reviewed By: Dsouza,Christopher

QA Reviewer